

# 結果主義・非結果主義に関連した道徳的ジレンマにおける態度および行動傾向：道徳的態度尺度の信頼性の検討

## Attitudes and Expected Behavior when Faced with Moral Dilemmas of the Consequentialistic vs. Non-consequentialistic Type: Reliability Examination of the Moral Attitude Questionnaire

アーランソン, アルビッド ERLANDSSON, Arvid

● 国際基督教大学大学院教育学研究科社会心理学専修研究生

Research Student in Social Psychology, Graduate School of Education, International Christian University



### Keywords

道徳態度, 結果主義, 非結果主義, 常識倫理, 予期された行動

Common Sense Morality, Consequentialism, Expected Behavior, Moral Attitudes, Non-consequentialism

## ABSTRACT

本研究は、新しい道徳的態度尺度 Moral Attitude Questionnaire (MAQ) を作成し、その信頼性を検討した。MAQは、結果主義的態度と常識的道徳と一致する非結果主義的態度を対比させることによって道徳的態度と予期された行動における個人差および文化差を測定する尺度である。1つのカテゴリーにつき5つのストーリーを作成し、5カテゴリーから成る計25ストーリー設定した。結果として、「作為 - 不作為」に対する態度および「家族への最良」に対する態度に関しては十分な信頼性が得られたが、「因果応報」に対する態度および「理性的な自殺」に対する態度における信頼性は予測よりも高いものではなかった。また、「犠牲者数の重視」に対する態度における信頼性は低かった。回答者は、一般的に道徳的態度としては家族への最良はよくないと考えていたが、実際の行動としては家族を最良する傾向があった。さらに、男性回答者は女性回答者より態度レベルでも予期された行動レベルでも家族を最良する傾向が示された。

The reliability of the newly constructed Moral Attitude Questionnaire (MAQ) was tested in this pilot study.

The MAQ aims to assess individual and cultural differences in moral attitudes and expected behavior on a broad scale, contrasting typically consequentialistic attitudes with typically non-consequentialistic attitudes congruent with common sense morality. Five representative categories with five stories in each were tested. It was found that attitudes towards the intentional act/foreseen omission doctrine and attitudes towards family partiality could be measured in a reliable way. The stories measuring attitudes towards retributive punishment and attitudes towards rational suicide showed mixed inter-correlations. Attitudes towards the moral weight of “number of victims” could not be measured in a reliable way. Participants reported expecting themselves to behave with greater partiality than they believed they should from a moral perspective. Male participants revealed a greater degree of partiality than female participants on both the attitude and the expected behavior levels.

## Introduction

All humans hold and express moral attitudes. Moral attitudes include moral judgments such as “right or wrong” and “blameworthy or praiseworthy”. Moral attitudes are also present when states of the world are described in terms of “good” or “bad” and “better or worse” as this tells us something about the values and worldview of the speaker. Big differences exist in what people describe as good or right. These differences in attitudes are found when comparing cultures or groups (cultural level) but also when comparing individuals within the same group of people (individual level) and when comparing the attitudes the same person expresses under different circumstances (situational level). The aim of this pilot study was to create an instrument that can measure individual and cultural differences in moral attitudes on a scale with “very consequentialistic attitudes” and “very common sense congruent non-consequentialistic moral attitudes” as two theoretical extremes. The concepts of consequentialism, non-consequentialism and common sense morality are discussed below. In addition, the present study investigates two types of moral responses - moral attitude and expected behavior - in order to avoid confusion between what participants think they morally should do (attitudes), and what they think they would do (expected behavior).

### Consequentialistic and Non-consequentialistic Attitudes: A classification

This paper will adopt a distinction common in both moral philosophy (see chapters 13-22 in Singer, 2005a), and contemporary moral psychology, and will classify attitudes and judgments as either consequentialistic or non-consequentialistic (Bartels, 2008; Greene, 2007; Lombrozo, 2009).

Within philosophy, consequentialism is conceptualized as being focused on consequences and as being exclusively forward-looking, aggregative and maximizing (Pettit, 2005). Furthermore, agent neutrality or universalism is an element of most consequentialistic theories (Darwall, 2005). How the desirable consequences should be understood is a matter of ongoing controversy, but usually consequentialists propose well-being of some kind (Darwall, 2005; Goodin, 2005). In this paper consequentialistic attitudes will be broadly defined as forward-looking, aggregative, agent-neutral attitudes, with a conscious final aim of maximizing the total amount of well-being while minimizing the total amount of suffering.

From a psychological point of view, consequentialism can be explained as a generalized aversion against suffering and a generalized fondness for pleasure. This is in line with what Haidt & Graham (2007) describe as the harm-foundation of moral attitudes.

The negative evaluation against harm seems to be relatively universal among cultures, and learned during infancy (Haidt & Graham, 2007). Also, the aggregating and maximizing nature of consequentialism makes it similar to a cost-benefit analysis. Moral cost-benefit analyses are characteristically complex and demand effortful contemplation. This has led several researchers to propose a connection between cognitive capacities, such as working memory, and consequentialistic moral attitudes (Greene, 2007; Moore et al., 2008). Research also supports the idea that when people engage in slow, effortful deliberation, they reach more consequentialistic judgments than when they are making moral judgments in a quick, intuitive and unconscious way (Greene et al., 2008).

Non-consequentialistic moral attitudes are addressed by a broad range of philosophical theories of morality such as deontology, right-based ethics, virtue ethics and contractarianism (See Singer, 2005a). These theories vary in what kind of conduct they propose as morally correct, but they are united by the characteristic that they place value on things other than just consequences. Deontology denies that consequences have any moral weight at all. Instead, morally right behavior stems from the categorical imperatives. Virtue ethics takes a more holistic approach to morality and is concerned with what kind of individual the good person is rather than what kinds of actions that are good or bad (Foot, 1978). Even if non-consequentialism is not a unified ethical theory, it can be used to illustrate the theoretical opposite of consequentialism. Before proceeding to a description of some of the most prominent differences between consequentialism and non-consequentialism, the idea of common sense morality is discussed briefly.

### Common Sense Morality

The extreme consequentialist and the extreme non-consequentialist positions are theoretical

examples meant to illustrate the differences between two philosophical theories. A more widespread source of moral motivation is the so-called “common sense morality”. Common sense morality is what normal persons “know” or “feel” to be good or bad without being able to explain why, and without any access to underlying principles. Common sense morality is often seen as consisting of a set of attitudes that is more or less taken as self-evident and manifested in humans in the form of an “gut-feeling” or “moral intuition” (Greene, 2007; Sunstein, 2005). This gut-feeling is usually a product of our autonomic response system (Damasio, 1994). It is unconsciously conveyed to us mainly via emotions (Haidt, 2001), and hence is very easy to rely on, and difficult to act against (Haidt & Kesebir, in press).

In some situations common sense morality will follow a typically consequentialistic rationale. For example, few people these days would agree with Kant’s view stressing the total unimportance of consequences and well-being. However, in other cases common sense morality can be very non-consequentialistic. It is especially in these areas, where consequentialism and common sense morality pull in different moral directions, where the main interest of this research resides.

### Five Non-Consequentialistic Categories

Despite Greene’s (2007) fascinating theory about deontology and consequentialism as the results of two separate neural systems in the brain, it might be too early to say that consequentialistic attitudes are the result of a stable “consequentialistic personality”. Therefore five sub-categories, that all have been comprehensively discussed within the fields of moral psychology and moral philosophy, were chosen for this pilot study. The categories chosen were: Attitudes towards the intentional act/foreseen omission doctrine; attitudes towards family partiality; attitudes towards the importance

of number of victims; attitudes about retributive punishment; and attitudes towards (rational) suicide.

In each category there exists one stereotypical consequentialistic answer and one opposite stereotypical answer that is both non-consequentialistic and also an accepted part of common sense morality. Research supports the idea that framed presentation of dilemmas and context vividness (Björklund, Haidt, & Murphy, 2000), together with stable individual differences (Bartels, 2008; Greene, *in press*), and cultural norm differences (Haidt, Koller & Dias, 1993) can predict the likelihood that a certain participant will express typically consequentialistic attitudes or typically non-consequentialistic attitudes in each of these five categories. There is no assertion here that this list of categories is exhaustive and complete. However, it can be said to illustrate the core differences between consequentialism and non-consequentialistic common sense morality.

#### **Intentional act/ foreseen omission doctrine.**

This category is a merger of two famous doctrines – the act/omission doctrine and the intentionality doctrine. For a consequentialist, there is no intrinsic difference between acts or omissions, or if the results are intentional or merely foreseen. For a non-consequentialist, this difference is absolutely central (Glover, 1977).

The act/omission doctrine can be illustrated by contrasting a case where the subject actively harms or kills another person with a case where the subject neglects to help a victim. For a consequentialist, the cases are of equal moral value as long as the consequences (including side-effects) are the same (Glover, 1977). For a non-consequentialist, the intentional act of killing is unconditionally forbidden while neglecting to help is not. Morally worse behavior is likely to be unconsciously interpreted as “actively doing” as opposed to “passively allowing” (Cushman, Young & Hauser, 2006).

The act/omission doctrine is related to but not identical to the idea of intentionality and this non-consequentialistic distinction is also well researched (Mele & Cushman, 2007; Hauser et al., 2007). Intended harm is, according to deontology and common sense, morally worse than the harm that is merely a foreseen side-effect. For a hardcore consequentialist, this is not the case. For non-consequentialists but not for consequentialists, an intentional active act of harming will be judged much worse than a foreseen omission to not help, even when the total harm in the latter scenario is significantly larger.

Using the famous trolley dilemma and its variations (Cushman & Young 2009; Greene et al., 2001; Greene, 2007; Waldmann & Dietrich, 2007), interesting facts about people’s common sense morality have been discovered. While 80-90% of the respondents believe it to be acceptable to sacrifice one person in order to save five by redirecting a train, only 10 % believe it to be acceptable to do it by pushing a man in front of the train (Greene, et al., 2001). It seems that intentional acts combined with a high degree of directness “push our moral buttons efficiently,” and makes us more critical (Greene et al., 2009). According to the cold-heart heuristic this might be because people who are mentally competent to harm intentionally and directly are seen as cold-hearted and cruel while this is not the case when it comes to merely foreseen harm resulting from omissions (Sunstein, 2005). Paharia et al., (2009) support this idea as they found that indirect harm (via someone else) is judged less harshly than direct harm.

#### **Partiality.**

While consequentialism is strictly agent-neutral, non-consequentialism, and common sense morality are agent-relative (Darwall, 2005). A consequentialist would argue that the relation the acting subject has to the people involved lacks direct moral significance. Instead it is simply the number of persons involved

and the changes in their respective well-being that are important. There are many different types of in-groups and out-groups and the common reaction towards discriminating between these depends to a high degree on which in-group that is discussed. To morally discriminate between human and non-human animals is still accepted (Singer, 1990), but to discriminate explicitly on the basis of race or sex is unacceptable.

One of the most concrete and extreme examples of how common sense morality can go against consequentialism is seen in attitudes towards partiality shown to one's own offspring. From a psychological perspective, the tendency to care for our in-group and especially for our own children has increased the chances of survival, and can be seen as the "descriptive default" of human behavior (Haidt & Kesebir, in press). It seems that evolution has endowed human beings with an emotional tendency to treat one's own children better than unknown children (Greene, 2007).

However, it is not this tendency toward partiality in and of itself that distinguishes consequentialists and non-consequentialists but rather the moral legitimacy one gives to this tendency (Greene, 2007; Singer, 2005b). A stereotypical consequentialist will see our tendency to be partial or unconditional in our love as a moral limitation or as a shortcoming, albeit in many cases an unavoidable one. In contrast, many non-consequentialists will see our tendency toward partiality as indicative of an absolute need to fulfill one's duty or as an aspect of our moral wisdom. For a non-consequentialist, it is not only psychologically odd to prefer to help a large number of strangers instead of one's own family, it is also morally despicable.

#### Importance of number of victims.

Consequentialism is per definition aggregating and maximizing while non-consequentialism is not. The demands on maximization mean that while it

for a non-consequentialist is acceptable to refrain from doing the maximal good as long as one is doing something good, the consequentialist will claim that the morally best action is the action that will result in the highest total increase (or lowest decrease) of well-being. The consequentialist will judge a charitable act that helps 200 persons as four times better than a charitable act that helps 50 persons while the non-consequentialist will be relatively uncaring as long as the motivation to help exists. This non-consequentialistic tendency is in line with virtue ethics and is in many contexts a part of our common sense morality.

Moral psychology has provided much insight into the nature of human moral cognition. Identification with the victim(s) strongly predicts the tendency to help (Greene, 2007). A single child trapped in a well, will evoke much stronger emotions than reading a notice about a large number of victims in a distant refugee camp (Haidt & Kesebir, in press). Interestingly, Jenni & Loewenstein (1997) showed that rather than the actual number of victims saved, people make decisions on the basis of how large a percentage of the potential victims that can be saved. In a similar sense, depending on whether a dilemma is presented in a vivid fashion or in a cold and objective way, this will alter most people's reactions even if the content is left unchanged (Bartels, 2008).

#### Legitimacy of retribution.

Consequentialism is exclusively forward looking while non-consequentialism is not (Dolinko, 2005; Ten, 2005). This can be seen, for example, in the context of retributive punishment, and is one classical dispute between consequentialists and non-consequentialists. A consequentialist will punish criminals for their wrongdoing solely on the basis of future consequences (Dolinko, 2005; Greene & Cohen, 2004). Future consequences include rehabilitation of criminals, protection of the society, and prevention of future crimes. A non-

consequentialist might accept these reasons, but still believe that there are more reasons to punish than mere consequences (e.g., Rogers, 2007). According to the deontologist, a criminal deserves to be punished even if this will not improve the future consequences and justice cannot be achieved unless the criminal is punished in proportion to the crime committed (Ten, 2005).

A variety of psychological studies indicate that the best predictor of preferred punishment is how angry or outraged the person making the judgment is at the moment (Greene, 2007). Sunstein (2005) characterizes the outrage heuristic as a general tendency to put faith in one's emotional response towards a situation. If one's emotional reaction is weak, the willingness to punish is small, but if the emotional reaction is strong, the willingness to punish is proportionally large. The justice and reciprocity-foundation advocated by Haidt & Graham (2007) also has some overlap with the idea of legitimate retributive punishment. For people with a strong sense of justice, to leave a wrongdoing unpunished is a moral problem even in cases where the total amount of suffering would be clearly lower.

### Suicide.

Even if most people see well-being as something important, non-consequentialistic common sense usually propose that there are other important values as well, and that there exist non-negotiable rules (Baron & Spranca, 1997; Tetlock, 2003). Of the many possible illustrations of this, suicide will be considered here (Anderberg, 1989). Suicide involves a direct intervention in matters of life and death which is often seen as problematic. Obviously, there are consequentialistic arguments against suicide (such as grief for friends and family). However, even when controlling for consequentialistic aspects, some people see suicide as immoral (Anderberg, 1989). In short, while a consequentialist will admit that suicide can be rational, acceptable and even preferable in

some tragic cases, many non-consequentialists will refute this and claim that suicide never is the best choice.

According to Haidt, Koller & Dias (1993), the tendency to think non-consequentialistically is unavoidable as most people have other moral foundations than simply a generalized aversion toward harm. One of these other foundations is based on the moral emotion of disgust. Disgust was originally beneficial for species survival as it made people emotionally averse toward evolutionary harmful conduct such as eating rotten food or sibling incest. The emotion of disgust has evolved over time and these days also involves social disgust, for example, towards people who are unthankful, selfish, or exhibit unusual but otherwise harmless sexual desires (Haidt & Graham, 2007)

On a related topic, Sunstein (2005) presents a heuristic called "do not tamper with nature". That something is artificial or unnatural often gives people an automatic negative emotional response, even in cases when the unnatural will lead to better consequences. Suicide can be seen as an unnatural interference that evokes disgust and other moral emotions, but that also occasionally decrease the total suffering.

### Level of Analysis

The benefit of using narrow stories such as the trolley-dilemma, is that it allows researchers to control the story and manipulate very small details one at the time, thereby allowing observations of how people's judgments change in the different conditions (Cushman & Young, 2009). However, the use of narrow dilemmas also has a downside in reduced ecological validity.

The originality of the present study resides in the broad range of moral stories chosen to measure the different categories. The purpose of constructing the Moral Attitude Questionnaire (MAQ) is to create stories that are not identical, take place in



different contexts, but still measure the hypothesized underlying predisposition to answer in a certain way. If the categories within the instrument exhibit decent internal reliability, then they can be used in future research directed towards measuring individual and cultural variations in the degree of consequentialistic attitudes.

### Aim of the Current Pilot Study

Given its preliminary nature and purpose, the aims and hypotheses presented below are exploratory. Firstly, the main aim was to be able to use factor analysis and reliability analysis techniques to extract at least three stories from each category. The three stories to be chosen from each category needed to have a decent degree of correlation with each other, therefore requiring an alpha value of 0.6 or greater to be acceptable for future use.

Secondly, the MAQ had the main focus of detecting individual and group differences. For this reason, stories were purposely written in order to evoke a large degree of variability in the answers offered by participants. The responses were rendered on an ordinal scale with the purpose of differentiating between participants in terms of how consequentialistic their attitudes were relative to others. It was thought that the ideal story would produce responses that were not overly skewed and with a high degree of variability in the responses. Third, attitudes and expected behavior were thought likely to be positively correlated but not identical among the categories.

Finally, sex differences were explored as one possible predictor for the degree of consequentialist attitudes on the assumption of more evolutionarily based categories of partiality towards family and suicide.

## Methodology

### Participants

A total of 103 participants (25 male; 78 female) served in this study. All were Japanese-speaking university students at the International Christian University (ICU) in Mitaka, Tokyo, Japan. The participants ranged in age from 18 to 26 with a mean age of 19.88. The participants were recruited from members of an introductory course in psychology as well as on an individual basis by the experimenter.

### Instrument

On the basis of a previous pilot-study, five stories in each category were constructed by the experimenter. Two bilingual Japanese graduate students translated these stories from the original English into natural Japanese. Several Japanese psychology scholars read and commented on the new translations before they were used in this study. All stories described a morally disturbing and complicated situation from a third-person perspective. After each story two alternative endings (labeled A and B) followed. One of the alternative endings was chosen to describe a typically consequentialistic act while the other ending described a typically non-consequentialistic act.

In all the stories in each category, the typical consequentialistic rationale “minimize the total suffering”, was contrasted against different non-consequentialistic heuristics congruent with common sense morality. These heuristics were for the intentional act/foreseen omission stories (labeled A) “never intentionally kill another person”: For the family partiality stories (F), “always help your children”: For the number of victims stories (N) “always follow your heart”: For the retribution stories (R) “always punish criminals” and for the suicide stories (S) “never commit suicide”. The context varied among the stories, but the core moral difference between the alternative endings was

expected to be the distinction between minimized suffering on the one hand and non-consequentialistic aspects on the other hand. The stories can be provided by the author upon request.

With a total of five stories in each of the five categories, the total number of stories was 25. As this was assumed to be too much of a burden in one session, two versions with 15 stories in each were constructed. In Version 1, the A, F and N categories were included while Version 2 consisted of the R, S and N categories. The N category was included twice as this was the category with the most extensive revisions since the previous pilot study.

## Procedure

After indicating their sex and age on the face sheet, the participants read the stories. Each story was provided with two endings and participants were asked to use a 7-point Likert to indicate which of the two alternatives they personally believed to be the better of the two (1 = "A is much better than B"; 7 = "B is much better than A"; 4 = "A and B are equally good/equally bad").

The second question was directed towards expected behavior and how the participants thought they would act if they were in the same situation as the main person in the story. Participants were asked to use a 7-point Likert scale to indicate which alternative they believed they would be more likely act in accordance with (1 = "I am sure I would do A rather than B", 7 = "I am sure I would do B rather than A"; 4 = "I have no idea what I would do/I would not do either A or B").

## Results

Firstly, two separate factor analyses were conducted for version 1 and version 2 of the pilot study respectively in order to determine which of the stories best illustrated each category. As the main focus was on attitudes rather than expected behavior,

stories were selected based only on the inter-story correlation on the attitudes-level.

Starting with version 1, all 15 stories from the A, N and F-categories were included in the first analysis. Three factors were hypothesized and as there was no presumption about whether or not the factors were correlated, the Varimax rotation method was chosen. In the first rotated factor matrix, Stories F1, F3 and F5 loaded most strongly under Factor 1. The four stories that loaded under Factor 2 were all from the A-category (A1, A3, A4, and A5). In the third factor, only one story (N1) fitted well. After a reliability analysis on the five N-stories revealed very low inter-correlations overall ( $\alpha = .289$ ), all stories from this category were discarded from subsequent analyses.

For the second factor analysis for the first version, the remaining A and F-stories were included and the Varimax rotation method yielded two factors. In the first factor all the F-stories loaded well and in the second factor all the A-stories loaded strongly. The three stories with the best factor loadings in each category were picked to represent each category. Hence the A3, A4 and A5-stories were chosen to measure attitudes towards the intentional act/foreseen omission doctrine. An analysis of internal reliability revealed that these stories reached an alpha value of .679. F1, F3 and F5 were the stories chosen to measure the attitudes towards partiality against family. The alpha value for these was .696.

After the N-stories were deleted, version 2 of the pilot study included the R and S-stories, and underwent the same kind of factor analysis. The first Varimax-rotated factor matrix yielded two factors, each of which consisted of a random mix of R and S-stories.

A detailed analysis of the inter-story correlations revealed that while the R-stories generally correlated weakly with each other, the R2 and R3-stories were moderately correlated ( $r = .41$ ). The S-stories were all weakly correlated with each other. The story



that fitted least well was S2 and it was therefore excluded.

On basis of the inter-story correlations, a second factor analysis for the second version included the remaining stories. Two factors emerged from this analysis. For Factor 1 the R3, R2-stories factored best. For Factor 2, story S1 and S3 fitted well. For this reason only two R-stories (R2 & R3) were chosen as appropriate to measure attitude towards retribution. The alpha value for R2 and R3 were .583. Similarly, stories S1 and S3 were chosen to represent the rational suicide-category. The alpha values for S1 and S3 were .559. For story correlations within each category, see Table 1.

The chosen stories were analyzed in greater detail in order to confirm they were not overly skewed or

had an excessively low variance. Starting with the A-stories, the mean responses were slightly lower than anticipated, especially for the A3-story and the A4-story, but the variance was reasonably high. The F-stories generally showed acceptable, albeit low, means and good variances. Only F5 showed a slight degree of skewness. The R-stories showed near ideal means and a wide distribution of responses. The S-stories showed a low mean especially on the attitude-level. The variance however was acceptably large. See table 2 for detailed statistics.

The attitudes and expected behaviors were moderately to strongly correlated over all the categories, but not strong enough to suggest that they were indistinguishable, ( $r = .513 - .756$ ). The mean scores of attitudes and expected behavior were

Table 1 Inter-correlations for the stories chosen for the different categories

A-stories	A3	A4	A5
A3	—	.31*	.24
A4	.46**	—	.45**
A5	.35*	.44**	—
Attitude $\alpha = .68$		Expected behavior $\alpha = .60$	
F-stories	F1	F3	F5
F1	—	.41**	.28
F3	.55***	—	.45**
F5	.35*	.40**	—
Attitude $\alpha = .70$		Expected behavior $\alpha = .65$	
R-stories	R2	R3	
R2	—	.36*	
R3	.41**	—	
Attitude $\alpha = .58$		Expected behavior $\alpha = .53$	
S-stories	S1	S3	
S1	—	.42**	
S3	.39**	—	
Attitude $\alpha = .56$		Expected behavior $\alpha = .59$	

Note: Inter-correlations for attitudes are shown below the diagonal, inter-correlations for expected behavior is shown above the diagonal.

Table 2 Mean and Skewness for the stories chosen. Mean difference and correlations between attitude-level and expected behavior level.

Story	Attitude Mean (SD)	Exp. Behavior Mean (SD)	Skewness Attitude	Skewness Behavior	t-value (df)	r
A3	2.31 (1.56)	2.39 (1.58)	1.31	1.36	-0.438 (50)	.67***
A4	2.86 (1.65)	2.80 (1.78)	0.98	0.82	0.280 (50)	.62***
A5	4.06 (1.87)	3.48 (1.99)	-0.17	0.27	2.687 (49)**	.69***
Total A	3.07 (1.32)	2.89 (1.33)	0.81	0.81	1.345 (49)	.73***
F1	3.55 (1.74)	4.20 (1.98)	0.19	-0.11	-2.619 (50)*	.55***
F3	2.80 (1.67)	3.80 (2.03)	0.83	0.31	-4.499 (50)***	.65***
F5	2.61 (1.86)	2.76 (1.96)	1.25	1.05	-0.756 (48)	.76***
Total F	2.98 (1.37)	3.57 (1.50)	0.70	0.31	-4.222 (48)***	.76***
R2	3.55 (1.87)	4.24 (2.16)	0.24	-0.02	-3.238 (49)**	.71***
R3	3.78 (2.07)	3.59 (2.34)	0.15	0.19	0.803 (49)	.69***
Total R	3.65 (1.66)	3.94 (1.86)	0.26	0.25	-1.565 (49)	.71***
S1	2.43 (1.60)	2.63 (1.97)	0.89	0.91	-0.843 (50)	.58***
S3	2.73 (1.73)	3.35 (1.98)	0.95	0.42	-2.252 (50)*	.43**
Total S	2.58 (1.39)	2.99 (1.66)	0.54	0.59	-1.928 (50)	.51***

Note: \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

also compared using a paired sample t-test. The F-category showed a significant difference between mean score for attitude ( $M = 2.98$ ) and expected behavior ( $M = 3.57$ ),  $t(48) = -4.222$ ,  $p < .001$ , while the others categories did not. Table 2 shows mean differences and correlations between the attitude-level and expected behavior-level measures.

Possible sex differences were also investigated. Using a series of independent samples t-tests, mean

differences were found only in the F-category. Males scored higher than females on both F-attitude ( $M = 3.60$  for males and  $M = 2.75$  for females,  $t(50) = 2.023$ ,  $p = .048$ ), and on F-expected behavior ( $M = 4.45$  for males and  $M = 3.25$  for females,  $t(50) = 2.704$ ,  $p = .009$ ). The other categories did not display any statistically significant sex differences (see table 3 for details).

In summary, three A-stories, three F-stories, two

Table 3 Sex differences in mean scores for responses

Story		Male Mean	Female Mean	t-value (df)	Sig.
A Total	Attitude	3.05	3.08	-0.069 (49)	.945
	Exp. Beh	3.14	2.79	0.849 (49)	.400
F Total	Attitude	3.60	2.75	2.023 (50)	.048*
	Exp. Beh	4.45	3.25	2.704 (50)	.009**
R total	Attitude	4.41	3.43	1.759 (49)	.085
	Exp. Beh <sup>1</sup>	5.05	3.64	1.871 (12,7)	.085
S Total	Attitude	2.14	2.70	-1.196 (49)	.238
	Exp. Beh	3.14	2.95	0.326 (49)	.746

Note: <sup>1</sup> = Equal variances not assumed

\* $p < .05$ . \*\* $p < .01$ .

R-stories and two S-stories can be said to measure the respective categories with acceptable reliability. The stories chosen showed a satisfactory variance and were not overly skewed. Attitudes and expected behavior correlated but were not indistinguishable.

## Discussion

The purpose was to develop an instrument (MAQ) that measure individual differences on a scale contrasting “consequentialistic attitudes” with “non-consequentialistic attitudes congruent with common sense morality”.

This pilot study revealed that the internal reliability of MAQ was slightly lower than anticipated, but two categories (A and F) at least reached the stipulated alpha value of 0.6. These weak inter-story correlations are comparable to other instruments designed to measure patterns in moral attitudes (Lombrozo, 2009), and can to some extent be attributed to the inherent design of the questionnaire. One innovative aspect of MAQ is the attempt to keep a balance between the narrowness and broadness of the moral stories in each of the categories. Story contents that are too broad will result in weak inter-story correlations as the contextual differences will tend to overshadow the similarities in moral theory. On the other hand, if the dilemmas are too narrow, the generalizability will be lower. In this study, the purpose was to find a balance and to keep the focus of the stories narrow enough so the responses would relate to each other, but of sufficient breadth to keep some degree of generalizability. In retrospect, further narrowing might have been preferred, but at least for the A and F-categories, the three stories chosen related reasonably well with each other, indicating that they can be used as they are for future studies.

The stories within the N-category barely correlated at all and thus may not be measuring the same underlying structure. This might be attributable to the design of the N-stories. Morally important aspects such as

intentions, certainty of outcome and severity of worst case scenario varied in the stories. Alternatively, the failure to measure the N-category can be attributed to an unavoidable inconsistency in people’s attitudes when it comes to comparing qualitative and quantitative harm (Greene, 2007).

The R-category and S-category included stories that showed mixed inter-story correlations. The two stories that correlated well in the R-category (R2 and R3) were similar in content and described cases where one person could decide whether atrocious criminals ought either to suffer or to be treated compassionately in the future, keeping all other consequences constant. The other R-stories varied to a greater degree in context and hence did not correlate as well with each other. Due to this, an additional R-story, similar to the R2 and R3-stories, will be created for use in future studies. The S-stories all had weak but similar positive internal correlations and the alpha-value decreased for every story removed. As such, this category requires further refinement.

The explicit aim to create stories that produced varied responses even among a rather homogenous sample was quite successful. Some stories chosen to represent the categories had means lower than anticipated but the overall variance was high. It can be concluded that the stories chosen did evoke mixed responses indicating that moral attitudes differed among the participants as required for this type of instrument.

This study also illustrates in a general sense the nature of the relationship between attitudes and expected behavior. Morality is often divided into behavior and attitudes, but the level of analysis can be separated even further. The most empirical way to study morality is in the form of direct observation of behavior. While these studies are of great interest, there are several areas where it is simply not feasible to conduct experiments. A more commonly used level of analysis is the expected behavior level. This

is how a person believes that she would react in a hypothetical situation. This might or might not differ from actual behavior depending on individual or situational factors.

Attitudes can be measured either from a first person perspective (e.g., If you are in this situation, how should you behave?) or from a third-person “global” perspective (e.g., How should a person behave in this situation?) The current study contrasted the global attitude perspective with the expected behavior perspective. Based on the results it is fair to say that even if people usually believe that they *would* behave in a similar way to how they think people *should* behave, these two are not identical. The correlations between the attitude-level and expected behavior-level ranged from 0.76 for the F-category to 0.51 for the S-category, indicating that people expect that they sometimes will not act in the same way they think is the morally correct way from a global point of view.

Looking at the mean scores for both attitudes and expected behavior, the only significant difference was found in the F-category. Participants had quite agent-neutral attitudes, but often admitted that in many cases they would not live up to their moral standards and behave in a partial way even if they recognized the moral problems with this. This is an expected result. Universalism is a well-known and applauded foundation for abstract (western) ethics, but simultaneously, partiality towards one’s family is the behavioral default deeply imprinted in our most basic emotions (Haidt & Kesebir, in press). This may well explain some of the well-researched dissonances between judgment and justification (Hauser et al., 2007).

The most widespread way to measure moral attitudes is to ask either which behavior is “morally right/wrong” or if a person “should be punished” (Haidt, Koller & Dias, 1993). In the MAQ, attitudes were instead measured by asking which of the two presented alternatives was seen as the

comparably “better” of the two. This method of responding was chosen in order to separate the often confused concepts of “good and bad”, “right and wrong”, and “praiseworthy and blameworthy”. A consequentialist might judge a certain state of the world as “worse”, but at the same time be very reluctant to level blame or to describe it as a moral wrongdoing. For example, it is possible to describe a tsunami or earthquake as “bad” because it causes a lot of suffering but it can hardly be considered as a wrongdoing.

As the purpose of this pilot study was to lay the groundwork for a major future study of moral attitudes and decision making, the only variable included in this pilot study was the participant’s sex. Studies in moral psychology within the intentional action/foreseen omission category have generally not found any sex differences (Cushman, 2006) and this result was supported in the present study. However, it is interesting to note that the male participants scored higher on both the attitude level and expected behavior level on the F-stories. This implies that male participants not only believe that they would behave in a more partial manner but also that they have less agent-neutral attitudes than female participants. This might be a result of uneven social desirability between male and female participants where females simply are less sincere in their attitude responses. Alternatively, females might answer the questionnaire in a more thoughtful way compared to males more intuitive judgments (Greene, 2007).

### Implications for a Future Major Study

On the basis of the results of this pilot study, the major study to follow will include a number of independent variables and the degree of consequentialistic vs. non-consequentialistic common sense-attitudes will be used as the dependent variable. One of these independent variables will be preferred information processing

style as suggested by Pacini and Epstein (1999). They argue that rationality and intuitivism are two orthogonal variables that together predict how different people reach their judgments in different situations. The person high on rationality and low on intuition will be more inclined and more competent to calculate cost and benefits. Persons with high trust in their intuitions but low rationality will be much more prone to make quick decisions on the basis of their “gut-feelings.” This gives support to the hypothesis that “rational people” will show spontaneously more consequentialistic attitudes compared to “intuitive people” (Greene, 2007). The REI-scale developed by Pacini and Epstein exists in a validated Japanese version (Naito, Suzuki, & Sakamoto, 2004) and will be included in the major study to follow.

After the “affective revolution” in moral psychology, moral emotions such as anger, disgust and empathy are these days not seen as side-products, but as genuine origins of moral judgments (Haidt, 2001; Haidt & Kesebir, in press). Greene (2007) agrees with this but categorize emotions as either currency emotions or alarm bell emotions. Currency emotions work as either pluses or minuses and can be used in conscious cost-benefit analyses. In contrast alarm-bell emotions are non-compromising and cause judgments and behaviors directly, without entering any conscious processes. The idea is that moral emotions predict behavior in all people, but while they predict in an indirect and conditional way (via currency emotions) for some people, they predict behavior directly and unconditionally for others.

In summary, this pilot study has proven valuable in contributing to the process of developing a questionnaire for measuring individual or cultural differences in degree of consequentialistic moral attitudes. The next step is to analyze the relation between the different categories. If Greene’s (2007) speculation is correct, consequentialistic attitudes

in one category should predict consequentialistic attitudes in other categories as well, but this is still very tentative. The major study to follow will also investigate the relation between individual differences in preferred information processing style, intensity of moral emotions and moral attitudes.

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## Author Note

Gratitude is expressed to the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) for the Research Student Scholarship granted to the author which made this project possible. Deepest gratitude is also expressed to the staff, fellow students and professors at ICU, especially Mikitoshi Isozaki and David W. Rackham. Special appreciation also goes to Naomi Erlewine and Nao Watanabe for their invaluable help with the translations.